UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,780	09/30/2003	John W. Northcutt	2002-015	4445

54472 7590 06/16/2010

COATS & BENNETT/SONY ERICSSON
1400 CRESCENT GREEN
SUITE 300
CARY, NC 27518

EXAMINER	
CHOW, CHARLES CHIANG	
ART UNIT	**PAPER NUMBER**
2618	

MAIL DATE	DELIVERY MODE
06/16/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,780	NORTHCUTT ET AL.	
	Examiner	Art Unit	
	Charles Chow	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

4a) Of the above claim(s) *11-21 and 31-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10, 22-30, 41-43,48-57* is/are rejected.

7)☒ Claim(s) *44-47* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. This Office Action is for amendment 3/19/2010. For the argued limitations, referring to the last pages of this Office Action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hayashi** [GB 2,380,908 A] in view of **Dowling** et al. [US 2002/0038,157 A1] and **Towell [US 5,911,129].**

For claim 1, **Hayashi** teaches a mobile communications device [mobile phone 101 in Fig.2] comprising

a wireless transceiver [mobile phone 101 has the transceiver inherently, in order transmit, receive, communication signal, with radio base station 105, for downloading play data, page 5, lines 20-22], a processor [controller 201] configured to analyze the audio file, synchronize a complementary multi-media effects with the audio file based on the synchronizing information [the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED

sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21].

Hayashi fails to teach the generating a pattern, synchronously with the playback of the audio file.

Dowling et al. [Dowling] teaches, the generating control signal, pattern, in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the synchronizing information

[the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph;

the executing of the computer software to interpret the music digital format to generate the LED light control signals, as pattern, to synchronize the light to the characteristics of audio input from audio file MP3, parag. 0003, 0005-0006, abstract; & analyzing the audio file in frequency & time domains in parag. 0107/0106;

the mapper 2015 automatically generates synchronizing pattern by interpreting audio input from audio decoder 2011, to generate LED light control signals to the light network to synchronize the light sequence to the playback of the audio, parag. 0110;

the mapper 2015 generates light control signal based on the analysis/calculating of the activities in the audio frequency band, detecting intensity of the received audio signal, parag. 0118/0120, to map, generate, the LED light synchronizing pattern from the calculated activity in audio frequency band, & its intensity], In order to synchronize the light effect to the audio playback. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi with Dowling's teachings above, such that the light could be synchronized to the audio playback.

Hayashi, with Dowling fail to teach the calculated synchronizing information, to generate a pattern, for synchronization

Towell teaches the calculated synchronizing information, to generate a pattern, for synchronization

[the calculated speech segment are analyzed & stored as voice-font for storing in memory 24/14 for encoded voice at 17, to playback at 25, col. 2, line 66 to col. 3, line 10;

the encoder 17 generates pattern from digital voice samples based on the dictionary 14, col. 3, line 65 to col. 4, line 20;

the voice playback at 25 using extracted timbre, pitch, timing, resonance, col. 5, lines 9-24/col. 4, lines 46-53], such that the audio playback can be synchronized to the calculated timbre, pitch, timing, resonance from Towell. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Dowling with Towell's teaching above, such that the audio playback would be synchronized to the calculated timbre, pitch, timing, resonance.

For claim 2, Hayashi teaches the mobile phone communications device [101, Fig. 2], wherein said information is timing information [the time information in tempo 501, the setting of tempo, playing speed, based on play data in page 8, lines 24-29].

For claims 4, Hayashi teaches the mobile phone communications device [101, Fig. 2], wherein said processor [201] stores the synchronizing information in said memory [storing down loaded play data in RAM, which has synchronizing indicating data 501-503, 401-404].

For claims 5, Hayashi teaches the mobile phone communications device [101, Fig. 2], wherein said processor generates a control signal during playback of the audio file to control the complementary multi-media effect according to the synchronizing information [the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28; sync data 502, 503].

For claims 6, Hayashi teaches the mobile phone communications device [101, Fig. 2], wherein the complementary multi-media effect comprises tactile feedback [vibrator 211], and said control signal controls a tactile feedback generator in synchronization with the synchronizing information [the controller 210 generates electrical signal to synchronize vibrator 211 to played music, page 6, lines 22-28, sync data 503].

For claims 7, Hayashi teaches the mobile phone communications device [101, Fig. 2], wherein the complementary multi-media effect comprises one or more lights [210] and

said control signal controls the one or more lights in synchronization with the synchronizing information [the 201 generates electrical signal to emits light from Led 210 to synchronize with played music data specified in 403-404, page 6, lines 22-28].

For claim 10, Hayashi, Towell fail to teach the controlling an external device.

Dowling teaches the wherein said the processor [computer system 2009, Fig. 8] generate control signal [signal from output port 2020] during playback of the audio file to control an external device connected via the system interface [the lighting network connected to output port 2020] according to the synchronizing information [audio data 2005 & parag 0017, 0110], in order to control the external lighting network for the synchronized light effect. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Towell with Dowling's teaching above, such that the external lighting network could provide the synchronized light effect.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Adams, Dowling, Towell, as applied to claim 1 above, and further in view of Vandermeijden et al. [US 2004/0067,751 A1].

For claim 3, Hayashi teaches the mobile phone communications device [101, Fig. 2].

Hayashi, Dowling, Towell fail to teach the wherein said information is instrument type information.

Vandermeijden et al. [Vandermeijden] teaches the user can assign the sound of particular musical instrument to a group of callers, for the ring tone [paragraph 0025], of the mobile telephone for identifying different caller [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide

Hayashi, Dowling, Towell with Vandermeijden's different distinct instrument sound for notifying the incoming call, in order to identify different caller.

5 Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, as applied to claims 5 above, and further in view of Fredlund et al. [US 6,639,649 B2].

For claim 8, Hayashi teaches the mobile phone communications device [101 in Fig. 2].

Hayashi, Dowling, Towell fail to teach the camera to take picture.

Fredlund et al. [Fredlund] teaches the wherein the complementary multi-media effect comprises a camera, and said control signal activates the camera to take a picture in synchronization with the synchronizing information.

[the camera 10; the generate a signal by analyzing stored audio to capture plurality of images in col. 3, lines 23-47; the synchronizing pleasing effect is created in accordance with played music beat in col. 1, lines 1-6], to creating a better effect by playing music while taking a picture. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell fail to teach with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

For claim 9, Hayahsi teaches the mobile phone communications device 101 in Fig. 2.

Hayashi, Dowling, Towell fail to teach the complementary effect.

Fredlund teaches the wherein the complementary multi-media effect comprises a video sequence, and said control signal controls a display to playback said video sequence in synchronization with the synchronizing information

[the music analyzer analyzing stored audio for determining when to display a sequence of stored images according to the stored audio and a audio reproducer for playing the audio recording, col. 1, line 57 to col. 2, lines 7; display 50]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell fail to teach with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

6. Claims 22-23, 25-28, 41, 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi [GB 2,380,908 A] in view of Dowling -'157A1 and Towell-129.

For claim 22, Hayashi teaches a method [steps in Fig. 3] of synchronize multi-media effects with an audio file in a mobile communications device [steps 306, 312, to synchronize of the music data with the light/vibration effect from LED 210/vibrator 211 of a mobile phone, abstract, Fig. 2],

the method comprising analyzing an audio file stored in memory of the mobile communications device [the controller 201 analyzes synchronizing data 501-503 & music indicating data 401-404, to determine the music data for synchronizing with LED or vibrator page 7, lines 5-28, Fig. 4-6; the play data in Fig. 4-5, stored in RAM of memory 202, as the audio file in memory]

synchronize a complementary multi-media effects in the mobile communications device with audio file based on the synchronizing information [the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-

403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21].

Hayashi, fails to teach the generating a pattern, synchronously with the playback of the audio file.

Dowling teaches, the generating control signal, pattern, in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the synchronizing information

[the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph;

the executing of the computer software to interpret the music digital format to generate the LED light control signals, as pattern, to synchronize the light to the characteristics of audio input from audio file MP3, parag. 0003, 0005-0006, abstract; & analyzing the audio file in frequency & time domains in parag. 0107/0106;

the mapper 2015 automatically generates synchronizing pattern by interpreting audio input from audio decoder 2011, to generate LED light control signals to the light network to synchronize the light sequence to the playback of the audio, parag. 0110;

the mapper 2015 generates light control signal based on the analysis/calculating of the activities in the audio frequency band, detecting intensity of the received audio signal, parag. 0118/0120, to map, generate, the LED light synchronizing pattern from the calculated activity in audio frequency band, & its intensity], In order to synchronize the light effect to the audio playback. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi with Dowling's teachings above, such that the light could be synchronized to the audio playback.

Hayashiwith Dowling fail to teach the calculated synchronizing information, to generate a pattern, for synchronization

Towell teaches the calculated synchronizing information, to generate a pattern, for synchronization

[the calculated speech segment are analyzed & stored as voice-font for storing in memory 24/14 for encoded voice at 17, to playback at 25, col. 2, line 66 to col. 3, line 10;

the encoder 17 generates pattern from digital voice samples based on the dictionary 14, col. 3, line 65 to col. 4, line 20;

the voice playback at 25 using extracted timbre, pitch, timing, resonance, col. 5, lines 9-24/col. 4, lines 46-53], such that the audio playback can be synchronized to the calculated timbre, pitch, timing, resonance from Towell. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Dowling with Towell's teaching above, such that the audio playback would be synchronized to the calculated timbre, pitch, timing, resonance.

For claim 23, Hayashi teaches the mobile phone communications device [101 in Fig. 2], wherein said information is timing information [the time information in tempo 501, the setting of tempo, playing speed, in page 8, lines 24-29].

For claim 25, Hayashi teaches the mobile phone communications device [101 in Fig. 2], wherein said processor [201] stores the synchronizing information in said memory [storing down loaded play data in RAM, which has synchronizing indicating data 501-503, 401-404].

For claim 26, Hayashi teaches the mobile phone communications device [101 in Fig. 2], wherein said processor generates a control signal during playback of the audio file to control the complementary multi-media effect according to the synchronizing information

[the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28].

For claim 27, Hayashi teaches the mobile phone communications device [101 in Fig. 2], wherein the complementary multi-media effect comprises tactile feedback [vibrator 211], and said control signal controls a tactile feedback generator in synchronization with the synchronizing information [the controller 210 generates electrical signal to synchronize vibrator 211 to played music, page 6, lines 22-28].

For claim 28, Hayashi teaches the mobile phone communications device [101 in Fig. 2], wherein the complementary multi-media effect comprises one or more lights [210] and

said control signal controls the one or more lights in synchronization with the synchronizing information [the 201 generates electrical signal to emits light from Led 210 to synchronize with played music data specified in 403-404, page 6, lines 22-28].

For claim 41, Hayashi teaches a method of synchronizing one or more complementary multi-media effects [the synchronizing of the music data with vibrator 211, LED 210 in abstract] with an audio file [the memory 202, page 6, lines 1-7, has music identifier 403 & note number 404 in Fig. 4, page 9, 12-21] in a mobile communications device [mobile phone, page 1, lines 5-10],

the method comprising selecting a sample from an audio file stored in memory in a mobile communications device [the controller selects the music data contained in play data page 9, lines 3-11 & the indicating data 501-503 in Fig. 5; the indicating data in Fig. 4 contains the music identifier 403 & note number 404 in page 9, lines 5-21; stored in RAM of memory 202];

analyzing said sample [the 201 determines whether or not the music is contained in the play data S303, page 7, lines 5-15; the mobile phone in Fig. 2; the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21].

Hayashi fails to teach the generating a pattern, synchronously with the playback of the audio file.

Dowling teaches, the generating control signal, pattern, in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the synchronizing information

[the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph;

the executing of the computer software to interpret the music digital format to generate the LED light control signals, as pattern, to synchronize the light to the characteristics of audio input from audio file MP3, parag. 0003, 0005-0006, abstract; & analyzing the audio file in frequency & time domains in parag. 0107/0106;

the mapper 2015 automatically generates synchronizing pattern by interpreting audio input from audio decoder 2011, to generate LED light control signals to the light network to synchronize the light sequence to the playback of the audio, parag. 0110;

the mapper 2015 generates light control signal based on the analysis/calculating of the activities in the audio frequency band, detecting intensity of the received audio signal, parag. 0118/0120, to map, generate, the LED light synchronizing pattern from the calculated activity in audio frequency band, & its intensity], In order to synchronize the light effect to the audio playback. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi with Dowling's teachings above, such that the light could be synchronized to the audio playback.

Hayashi with Dowling fail to teach the calculated synchronizing information, to generate a pattern, for synchronization

Towell teaches the calculated synchronizing information, to generate a pattern, for synchronization

[the calculated speech segment are analyzed & stored as voice-font for storing in memory 24/14 for encoded voice at 17, to playback at 25, col. 2, line 66 to col. 3, line 10;

the encoder 17 generates pattern from digital voice samples based on the dictionary 14, col. 3, line 65 to col. 4, line 20;

the voice playback at 25 using extracted timbre, pitch, timing, resonance, col. 5, lines 9-24/col. 4, lines 46-53], such that the audio playback can be synchronized to the calculated timbre, pitch, timing, resonance from Towell. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Dowling with Towell's teaching above, such that the audio playback would be synchronized to the calculated timbre, pitch, timing, resonance.

For claim 55, Hayashi teaches the further comprising the storing the synchronizing information in memory of the mobile communications device [the mobile phone downloading play data for storing in RAM, page 6,lines 1-7].

For claim 56, Hayashi teaches the wherein synchronizing the one or more complementary multi-media effects with the audio file [the synchronizing of LED, vibrator to music data in indicating data 403-404 of the play data in Fig. 5] comprises generating a control signal to the one or more multi-media effects based on the synchronizing information during playback of the audio file [the LED emits light based on the electrical signal generated from controller 201, page 6, lines 22-28].

For claim 57, **Hayashi** teaches a circuit [Fig. 2] comprising a microprocessor [controller 210] programmed to analyzing an audio stream [the program to be executed by controller 201, page 6 lines 1-3 & the step 306 in Fig. 3; the controller 201 sets the play speed, tempo, based on tempo data 501, synchronization information, in data file to synchronize the turning on/off of LED/vibrator according to the music playing speed step 315, to turn on/off LED/vibrator at correct timing according to the music playing information, Fig. 3/Fig. 6, page 7, line 20 to page 8, line 5 & page 8, lines 14-29; the audio file with 401-403 in Fig. 4 & LED sync 502/vibrate sync 503 in Fig. 5; the memory 202 has stored audio file with note number 404, 403, Fig. 4/Fig. 3, page 9, lines 12-21; based no the music playback from the downloaded music, page 4, lines 4-11 & page 5, lines20-23].

Hayashi fails to teach the generating a pattern, synchronously with the playback of the audio file.

Dowling teaches, the generating control signal, pattern, in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the synchronizing information

[the computer readable medium 2007 executes light program to control LED lights according to the processing of audio input data 2005 to generates lights, the mapper 2019, the light output port 2020 of the computer system 2009 in Fig. 8; the processor 10, light sequence 20/light control 30 in Fig. 1, paragraph 0017; changing light show based on the inputted audio data in parag 0110; using parag for paragraph;

the executing of the computer software to interpret the music digital format to generate the LED light control signals, as pattern, to synchronize the light to the characteristics of audio input from audio file MP3, parag. 0003, 0005-0006, abstract; & analyzing the audio file in frequency & time domains in parag. 0107/0106;

the mapper 2015 automatically generates synchronizing pattern by interpreting audio input from audio decoder 2011, to generate LED light control signals to the light network to synchronize the light sequence to the playback of the audio, parag. 0110;

the mapper 2015 generates light control signal based on the analysis/calculating of the activities in the audio frequency band, detecting intensity of the received audio signal, parag. 0118/0120, to map, generate, the LED light synchronizing pattern from the calculated activity in audio frequency band, & its intensity], In order to synchronize the light effect to the audio playback. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi with Dowling's teachings above, such that the light could be synchronized to the audio playback.

Hayashi with Dowling fail to teach the calculated synchronizing information, to generate a pattern, for synchronization

Towell teaches the calculated synchronizing information, to generate a pattern, for synchronization

[the calculated speech segment are analyzed & stored as voice-font for storing in memory 24/14 for encoded voice at 17, to playback at 25, col. 2, line 66 to col. 3, line 10;

the encoder 17 generates pattern from digital voice samples based on the dictionary 14, col. 3, line 65 to col. 4, line 20;

the voice playback at 25 using extracted timbre, pitch, timing, resonance, col. 5, lines 9-24/col. 4, lines 46-53], such that the audio playback can be synchronized to the calculated timbre, pitch, timing, resonance from Towell. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Dowling with Towell's

teaching above, such that the audio playback would be synchronized to the calculated timbre, pitch, timing, resonance.

7. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, as applied to claim 41 above, and further in view of Shibata [US 2001/0023,197].

For claim 54, Hayashi fails to teach the features in this claim.

Shibata teaches the method further comprising overwriting selected information in the audio file with the synchronizing information [the overwriting selected indicating "1 ON", "2 OFF", in to memory 80, for synchronizing melody with vibration, or different screens 30, paragraph 0029-0033]. Therefore, one of ordinary skill in the art at the time the invention was made would have been obvious to modify Hayashi, Adams, Dowling, Towell with Shibata's teaching above, such that the synchronization could be inserted into audio.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, as applied to claim 22 above, and further in view of Vandermeijden-'751 A1.

For claim 24, Hayashi teaches the mobile phone communications device [Fig. 2].

Hayashi, Dowling, Towell fail to teach the instrument type.

Vandermeijden teaches the wherein said information is instrument type information [the user can assign the sound of particular musical instrument to a group of callers, for the ring tone, paragraph 0025], of the mobile telephone for identifying different caller [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide Hayashi, Dowling, Towell with Vandermeijden's different distinct instrument sound for notifying the incoming call, in order to identify different caller

9. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over ayashi in view of, Dowling, Towell, as applied to claim 26 above, and further in view of Fredlund-'649 B2.

For claim 29, Hayashi teaches the mobile phone communications device in Fig. 2.

Hayashi, Dowling, Towell fail to teach the complementary multi-media effect with camera.

Fredlund teaches wherein the complementary multi-media effect comprises a camera, and said control signal activates the camera to take a picture in synchronization with the synchronizing information [the camera 10; the generate a signal by analyzing stored audio to capture plurality of images in col. 3, lines 23-47; the synchronizing pleasing effect is created in accordance with played music beat in col. 1, lines 1-6], to creating a better effect by playing music while taking a picture. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

For claim 30, Hayahsi teaches the mobile phone communications device in Fig. 2.

Hayashi, Dowling, Towell fail to teach the complementary multi-media effect with video sequence.

Hayashi fail to teach the wherein the complementary multi-media effect comprises a video sequence, and said control signal controls a display to playback said video sequence in synchronization with the synchronizing information.

Fredlund teaches these features [the music analyzer analyzing stored audio for determining when to display a sequence of stored images according to the stored audio and a audio reproducer for playing the audio recording, col. 1, line 57 to col. 2, lines 7; display 50]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell with the teachings from Fredlund, in order to provide better effect by playing music while taking a picture.

10. Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, as applied to claim 41 above, and further in view of Aoki-'802.

For claim 42, Hayashi teaches the wherein analyzing said sample to determine synchronizing information [the analyzing music data in indicating data 401-404, for determine the synchronizing music data].

Hayashi, Dowling, Towell fail to teach the equivalent number of notes.

Aoki teaches the sectioning said sample into a plurality of measures, each said measure comprising an equivalent number of notes.

[the search a sound pattern via chord analysis of each divided sound performance section, sample, which has a predetermined number of beats, col. 1, line 58 to col. 2, line 6, Fig. 2-6; the predetermined number of beats is the equivalent number of notes in the measure], in order to identify a sound section [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell with Aoki's predetermined number of beats in the performance section, in order to identify the music data.

For claim 43, Hayashi teaches the controller 201 to determined the synchronizing information as shown in claim 1.

Hayashi, Dowling, Towell fail to teach the beat, in said measure.

Aoki teaches the wherein analyzing said sample determine the notes that occur within a desired beat in each said measure [the analyzing divided section of the performance data & comparing the harmonic tone associated with the sound pattern S1-S4, for identifying a sound pattern in col. 7, lines 10-33; the predetermined number of beats in col. 1, line 58 to col. 2, line 6], in order to identify a sound section [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell with Aoki's predetermined number of beats in the performance section, in order to identify the music data.

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, as applied to claim 41 above, and further in view of Adams [US 2003/0017,808 A1].

For claim 48, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to calculate the synchronizing information 502-502, 401-404, in claim 22 above.

Hayashi, Dowling, Towellfail to teach the sampling the output of a MIDI synthesizer.

Adams teaches the sampling the output of a MIDI synthesizer [the processor GPP 12 parses the MIDI output stream into synthesis packets for outputting audio signal via DAC 16, paragraph 0019, Fig. 1-2], for the low cost 3G wireless phone [0016]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hayashi, Dowling, Towell with Adams-'808s teachings above, such that the cost could be reduced, by processing the MIDI data stream, of the packet synthesis.

12. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view Dowling, Towell, Adams-'808s, as applied to claim 48 above, and further in view of Fujiwara et al. [US 6, 800,799 B2].

For claim 49, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to determine the synchronizing information 502-502, 401-404.

Hayashi, Dowling, Towell, Adams-'808 fail to teach the detecting a peak amplitude within said sample.

Fujiwara teaches these features [the detecting of the peaks of audio signal AL1 during playback, for synchronization, in col. 12, lines 18-27; the applying threshold TH1 to audio peaks in col. 13, lines 16-20], in order to synchronize the timing of the audio playing back [abstract]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell, Adams-'808s with Fujiwara's teachings above, such that the timing could be synchronized to the audio playing back

For claim 50, Hayashi teaches the mobile phone communication device in Fig. 2 & the analyzing sample to determine the synchronizing information 502-502, 401-404.

Hayashi, Dowling, Towell, Adams-'808 fail to teach comparing to threshold.

Fujiwara teaches the comparing said detected peak amplitude to a threshold value [the detecting of the peaks of audio signal AL1 during playback, for synchronization, in col. 12, lines 18-27; the applying threshold TH1 to audio peaks in col. 13, lines 16-20]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell, Adams-'808s with Fujiwara's teachings above, such that the timing could be synchronized to the audio playing back.

13. Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of Dowling, Towell, Adams-'808, Fujiwara, as applied to claim 50 above, and further in view of Goldberg et al. [US 2007/0136,769 A1].

For claim 51, Hayashi, Dowling, Towell, Adams-'808, Fujiwara fail to teach the threshold comparison.

Goldberg et al. [Goldberg] teaches the wherein synchronizing the one or more complementary multi-media effects with the audio file comprises generating a control signal based on the comparison of said detected peak amplitude and said threshold value [synchronizing audio playback in parag 0078, 0307; the comparing the maximum amplitude with threshold in parag 0291], in order to identify the music [parag 0290]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Dowling, Towell, Adams-'808, Fujiwara with Goldberg's teachings above, such that the music could be identified for playing back

For claims 52, 53, Hayashi, Towell, Adams-'808, Fujiwara fail to teach the varying the intensity.

Dowling teaches the wherein synchronizing the one or more multi-media effects with the audio file varying the intensity, varying the duration of activation, of the one or more complementary multi-media effects based on audio input [modifying the intensity in parag 0047; defined duration in parag 0045; & parag 0017/0110], in order to indicate the synchronization with varying intensity. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Adams-'862, Towell, Adams-'808, Fujiwara with Dowling's teachings above, such that the synchronization effect could be indicated with varying intensity.

Hayashi, Towell, Adams-'808, Fujiwara with Dowling fail to teach the threshold comparison.

Goldberg teaches the the comparison of said detected peak amplitude and said threshold value [synchronizing audio playback in parag 0078, 0307; the comparing the maximum amplitude with threshold in parag 0291], in order to identify the music [parag 0290]. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to upgrade Hayashi, Towell, Adams-'808, Fujiwara, Dowling with Goldberg's teachings above, such that the music could be identified for playing back.

Claims Objection

14. Claims 44-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For claim 44, the cited prior arts in below fail to teach the analyzing said sample to determining synchronizing information further comprising calculating weight value by summing a velocity parameter of a corresponding note-on event for each said note that occurs within said desired beat in each said measure.

For claim 45, the cited prior arts in below fail to teach the wherein analyzing said sample to determine synchronizing information comprises calculating a first value and a second value based on a first candidate time signature and a second candidate time signature, respectively. **Claims 46-47** are objected to due to their dependency upon objected claim 45.

Other prior arts are also considered. They are: **Armanto et al. [US 6,094,587], Chung [US 2003/0162,571 A1], Nishitani [US 2003/0045,274 A1], Matsuda et al. [US**

2001/0014,616 A1], Ito [US 6,597,928 B2], Kawasaki et al. [US 2002/0142,810 A1], Kim [US 6,278,884 B1], Brown et al. [US 2005/0190,199A1].

Response to Argument

15. Applicant's arguments with respect to claims 1-10, 22-30, 41-43. 48-57 have been considered but are moot in view of the new ground(s) of rejection.

Applicant the argument for the improper for **Dowling to use Bhadkamkar's** calculated synchronizing information, to generate a pattern in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the calculated synchronizing information [pages 3-5],

Dowling teach the to generate, a control, pattern in which to render a complementary multi-media effect **synchronously with the playback of the audio file** based on the synchronizing information

[the executing of the computer software to interpret the music digital format to generate the LED light control signals, as pattern, to synchronize the light to the characteristics of audio input from audio file MP3, parag. 0003, 0005-0006, abstract; & analyzing the audio file in frequency & time domains in parag. 0107/0106;

the mapper 2015 automatically generates synchronizing pattern by interpreting audio input from audio decoder 2011, to generate LED light control signals to the light network to synchronize the light sequence to the playback of the audio, parag. 0110;

the mapper 2015 generates light control signal based on the analysis/calculating of the activities in the audio frequency band, detecting intensity of the received audio signal, parag. 0118/0120, to map, generate, the LED light synchronizing pattern from the calculated activity in audio frequency band, & its intensity].

Dowling is not clear for the calculated synchronizing information, to generate a pattern, for synchronization

Towell [US 5,911,129] teaches the calculated synchronizing information, to generate a pattern, for synchronization

[the calculated speech segment are analyzed & stored as voice-font for storing in memory 24/14 for encoded voice at 17, to playback at 25, col. 2, line 66 to col. 3, line 10;

the encoder 17 generates pattern from digital voice samples based on the calculated voice-font & dictionary 14, col. 3, line 65 to col. 4, line 20;

the voice playback at 25 using extracted timbre, pitch, timing, resonance, col. 5, lines 9-24/col. 4, lines 46-53].

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Charles Chow/
Examiner, Art Unit 2618
June 1, 2010.

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2618